

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (cancelled)

Claim 2 (currently amended): ~~The method of claim 1~~ A method of compressing data, comprising the step of approximating said data using Chebyshev polynomials, further comprising the step of:

dividing said data into data blocks of a predetermined size, to form matrices corresponding to each data block; and

transforming the data in each matrix using Chebyshev polynomials to form corresponding matrices of Chebyshev coefficients.

Claim 3 (original): The method of claim 2, further comprising the step of:

thresholding the Chebyshev coefficients in each matrix to retain in each matrix only Chebyshev coefficients that are of a predetermined value.

Claim 4 (original): The method of claim 3, further comprising the step of:

quantizing said Chebyshev coefficient matrices to create a compressed data block corresponding to each of said data blocks.

Claim 5 (original): The method of claim 4, further comprising the step of:
creating control words for each of said compressed data blocks, said control
enabling decompression of said compressed data blocks in proper sequence.

Claim 6 (original): The method of claim 5, wherein said quantizing step comprises at least
the step of:
performing floating point quantization on said Chebyshev coefficient matrices.

Claim 7 (original): The method of claim 5, wherein said quantizing step comprises at least
the step of:
performing inverse hyperbolic sine compander quantization on said Chebyshev
coefficient matrices.

Claim 8 (original): The method of claim 5, further comprising the step of:
losslessly compressing said control words.

Claim 9 (original): The method of claim 8, further comprising the steps of:
transmitting said compressed data blocks and said compressed control words to a
receiver;
decoding said compressed control words and compressed data blocks; and
performing block artifact reduction on said decoded data blocks.

Claim 10 (cancelled)

Claim 11 (currently amended): ~~The system of claim 10~~ A system of compressing data,
comprising means for approximating said data using Chebyshev polynomials, further
comprising:

means for dividing said data into data blocks of a predetermined size, to form matrices corresponding to each data block; and

means for transforming the data in each matrix using Chebyshev polynomials to form corresponding matrices of Chebyshev coefficients.

Claim 12 (original): The system of claim 11, further comprising:

means for thresholding the Chebyshev coefficients in each matrix to retain in each matrix only Chebyshev coefficients that are of a predetermined value.

Claim 13 (original): The system of claim 12, further comprising:

means for quantizing said Chebyshev coefficient matrices to create a compressed data block corresponding to each of said data blocks.

Claim 14 (original): The system of claim 13, further comprising:

means for creating control words for each of said compressed data blocks, said control enabling decompression of said compressed data blocks in proper sequence.

Claim 15 (original): The system of claim 14, wherein said means for quantizing comprises:

means for performing floating point quantization on said Chebyshev coefficient matrices.

Claim 16 (original): The system of claim 14, wherein said means for quantizing comprises:

means for performing inverse hyperbolic sine compander quantization on said Chebyshev coefficient matrices.

Claim 17 (original): The system of claim 14, further comprising:

means for losslessly compressing said control words.

Claim 18 (original): The system of claim 17, further comprising:

means for transmitting said compressed data blocks and said compressed control words to a receiver;

means for decoding said compressed control words and compressed data blocks;
and

means for performing block artifact reduction on said decoded data blocks.

Claim 19 (cancelled)

Claim 20 (currently amended): ~~The computer program product of claim 19~~ A computer program product recorded on computer readable medium for compressing data, comprising computer readable means for approximating said data using Chebyshev polynomials,
further comprising:

computer readable means for dividing said data into data blocks of a predetermined size, to form matrices corresponding to each data block; and

computer readable means for transforming the data in each matrix using Chebyshev polynomials to form corresponding matrices of Chebyshev coefficients.

Claim 21 (original): The computer program product of claim 20, further comprising:

computer readable means for thresholding the Chebyshev coefficients in each matrix to retain in each matrix only Chebyshev coefficients that are of a predetermined value.

Claim 22 (original): The computer program product of claim 21, further comprising:

computer readable means for quantizing said Chebyshev coefficient matrices to create a compressed data block corresponding to each of said data blocks.

Claim 23 (original): The computer program product of claim 22, further comprising:
computer readable means for creating control words for each of said compressed data blocks, said control enabling decompression of said compressed data blocks in proper sequence.

Claim 24 (original): The computer program product of claim 23, wherein said computer readable means for quantizing comprises:
computer readable means for performing floating point quantization on said Chebyshev coefficient matrices.

Claim 25 (original): The computer program product of claim 23, wherein said computer readable means for quantizing comprises:
computer readable means for performing inverse hyperbolic sine compander quantization on said Chebyshev coefficient matrices.

Claim 26 (original): The computer program product of claim 23, further comprising:
computer readable means for losslessly compressing said control words.

Claim 27 (original): The computer program product of claim 26, further comprising:
computer readable means for transmitting said compressed data blocks and said compressed control words to a receiver;
computer readable means for decoding said compressed control words and compressed data blocks; and
computer readable means for performing block artifact reduction on said decoded data blocks.

Claim 28 (currently amended) The method of claim 24, wherein said data comprises time-series data.

Claim 29 (currently amended): The system of claim 11 49, wherein said data comprises time-series data.

Claim 30 (currently amended): The computer program product of claim 20 49, wherein said data comprises time-series data.